Dial g DataStar

options logoff feedback help

databases easy search

Advanced Search: INSPEC - 1969 to date (INZZ)

limit

Search history:

No.	Database	Search term	Info added since	Results	
2	INZZ	1 AND Fujitsu.AS.	unrestricted	3	show titles
3	INZZ	2 AND 3D	unrestricted	0	-
4	INZZ	1 AND 3D	unrestricted	0	-
5	INZZ	senta-y$ AND 3d	unrestricted	0	-
6	INZZ	senta-y$	unrestricted	3	show titles
7	INZZ	1 AND CAD	unrestricted	0	-
8	INZZ	sato-y$	unrestricted	2488	show titles
9	INZZ	8 AND 3D	unrestricted	111	show titles
10	INZZ	9 AND actuator	unrestricted	0	-
11	INZZ	9 AND sensor	unrestricted	6	show titles

show all | hide | delete all search steps... | delete individual search steps...

Enter your search term(s): Search tips Thesaurus mapping

whole document

Information added since: or: none

(YYYYMMDD)

search

Select special search terms from the following list(s):

- Publication year
- Classification codes A: Physics, 0-1
- Classification codes A: Physics, 2-3
- Classification codes A: Physics, 4-5
- Classification codes A: Physics, 6
- Classification codes A: Physics, 7
- Classification codes A: Physics, 8
- Classification codes A: Physics, 9

Document

document 3 of 3 Order Document

INSPEC - 1969 to date (INZZ)

Accession number & update
6015555, C9810-3390C-016; 980902.

Title
Trajectory measurement system for wheeled robot using CCD camera.

Author(s)
Emura-T; Senta-Y; Hiyama-M; Kaneko-T; Arakawa-A.

Author affiliation
Fac of Eng, Tohoku Univ, Sendai, Japan.

Source
Transactions-of-the-Society-of-Instrument-and-Control-Engineers (Japan), vol.34, no.6, p.498-503, June 1998. , Published: Soc. Instrum. & Control Eng.

CODEN
TSICA9.

ISSN
ISSN: 0453-4654.

Availability
SICI: 0453-4654(199806)34:6L.498:TMSW; 1-2.

Publication year
1998.

Language
JA.

Publication type
J Journal Paper.

Treatment codes
T Theoretical or Mathematical; X Experimental.

Abstract
In order to analyze the mechanism of dead reckoning of wheeled robot, it is necessary to measure the trajectory of robot. The authors developed a measurement system using a CCD camera with electrically powered lens that tracks automatically a small wheeled robot using two servomotors. These servomotors have made possible to measure on large area and with high accuracy using zoom lens. After measuring and simulating the accuracy of this system, it was concluded that the main cause of measurement error is due to cross-coupling errors of the tracking system. In order to calibrate the measurement error, the authors used the table look-up method, and satisfactory results were obtained. This paper describes methods for reducing the measurement errors and the experimental

Dialog DataStar

options logoff feedback help

databases search page titles

Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

save locally as: PDF document search strategy: do not include the search strategy

previous documents next documents order

☑ **document 2 of 6** Order Document

INSPEC - 1969 to date (INZZ)

Accession number & update
6964335, B2001-08-7520-010; 20010625.

Title
Magneto-optic hybrid 3-D **sensor** for surgical navigation.

Author(s)
Nakamoto-M; Sato-Y; Tamaki-Y; Nagano-H; Miyamoto-M; Sasama-T; Monden-M; Tamura-S; Ed. by Delp-S-L; DiGioia-A-M; Jaramaz-B.

Author affiliation
Graduate Sch of Eng Sci, Osaka Univ, Japan.

Source
Medical Image Computing and Computer-Assisted Intervention - MICCAI 2000. Third International Conference. Proceedings, Pittsburgh, PA, USA, 11-14 Oct. 2000.
In: p.839-48, 2000.

ISSN
ISBN: 3-540-41189-5.

Publication year
2000.

Language
EN.

Publication type
CPP Conference Paper.

Treatment codes
P Practical; X Experimental.

Abstract
We have developed an accurate **3D** sensory system without a line-of-sight requirement for surgical navigation inside the body. Although magnetic sensors seem to be particularly suitable for this purpose, their accuracy is affected by metallic objects, which can hardly be avoided in a surgical environment. We propose a new magneto-optic hybrid **3D sensor** configuration that overcomes this limitation. Unlike previous hybrid systems, both the receiver and transmitter of the magnetic **sensor** are mobile, thereby permitting them to be positioned flexibly and adaptively so as to minimize inaccuracies arising from the presence of peripheral metallic objects. The **3D** position and orientation of the transmitter are measured by an optical **sensor** in order to accurately track the transformation between the coordinate systems of the magnetic and optical sensors. The effects of the distance between the receiver and the transmitter and their respective distances from metallic objects on the accuracy of the system were evaluated by experiments both in the laboratory and in the operating room. (6 refs).

Descriptors

biomedical-measurement; biomedical-transducers; magneto-optical-sensors; navigation; optical-transmitters; receivers; spatial-variables-measurement; surgery.

Keywords

magnetooptic hybrid **3D sensor;** surgical navigation; accuracy; peripheral metallic objects; mobile receiver; mobile transmitter; magnetic **sensor;** flexible adaptive positioning; inaccuracy minimization; **3D** position measurement; **3D** orientation measurement; optical **sensor;** coordinate system transformation; receiver transmitter distance.

Classification codes

B7520	(Patient care and treatment).
B4160	(Magneto-optical devices).
B7230	(Sensing devices and transducers).
B7320C	(Spatial variables measurement).

save locally as: PDF document search strategy: do not include the search strategy

previous documents next documents order

Top - News & FAQS - Dialog